REMARKS

In the Office Action mailed December 13, 2002, Claims 1-11 are rejected under 35 U.S.C. §102(b), as being anticipated by, or in the alternative, under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 5,589,543 issued to Yokelson et al. Claims 1-14 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. No. 6,166,166 issued to Taylor et al. Claims 1-14 are rejected under 35 U.S.C. §112, first paragraph both for a lack of enablement and for failing to satisfy the written description requirement. Claim 8 is rejected under 35 U.S.C. §112, second paragraph as being indefinite.

Applicants confirm the accuracy of the Examiner's presumption at page 3 of the instant Office Action regarding ownership of the presently claimed subject matter.

Rejections under 35 U.S.C. §112, first paragraph

Claims 1-14 are rejected under 35 U.S.C. §112, first paragraph, for a lack of enablement regarding determination of crystallinity and for failing to satisfy the written description requirement regarding support for claiming non-crystalline diisocyanates and symmetric diol chain extenders.

Applicants respectfully disagree with the Examiner, asserting that determining the crystallinity of a diisocyanate is within the knowledge of one skilled in the art and thus precludes the need for guidance in the instant specification. However, in the interest of expediting prosecution of the instant application and in keeping with the spirit of the PTO's Patent Business Goals ("PBG") 65 Fed. Reg. 54603 (September 8, 2000), the limitation "non-crystalline" has been removed from the claims.

As to the claimed symmetric diol chain extenders, Applicants respectfully contend that sufficient support for symmetric diol chain extenders may be found in the instant specification, *inter alia*, in the Examples, wherein use of a symmetric diol chain extender (1,4-butanediol) is described.

Applicants submit that because of the above-detailed changes, the claims are in compliance with 35 U.S.C. §112, first paragraph, and respectfully request the

Examiner reconsider and reverse his rejections of Claims 1-14 under 35 U.S.C. §112, first paragraph, for a lack of enablement and for failing to satisfy the written description requirement.

Rejections under 35 U.S.C. §112, second paragraph

Claim 8 is rejected under 35 U.S.C. §112, second paragraph as being indefinite. The Examiner contends, at page 2, paragraph number 4, of the instant Office Action, that Claim 8 recites non-symmetric chain extenders and therefore fails to further limit Claim 1.

Claim 8 has been amended in the instant response to remove any non-symmetric diol or diamine chain extenders therefrom.

Applicants submit that because of the above-detailed changes, the claims are in compliance with 35 U.S.C. §112, first paragraph, and respectfully request the Examiner reconsider and reverse his rejection of Claim 8 under 35 U.S.C. §112, second paragraph, as being indefinite.

Rejections under 35 U.S.C. §§102(b)/103(a)

Claims 1-11 are rejected under 35 U.S.C. §102(b), as being anticipated by, or in the alternative, under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 5,589,543 issued to Yokelson et al.

Applicants respectfully disagree with the Examiner regarding Yokelson et al. and remind the Examiner that as stated in MPEP §2131, to anticipate a claim, a reference must teach every element of that claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the...claim." *Richardson v. Suzuki Motor Co.,* 868 F.2d 1226,1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

As stated in MPEP §2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, citing *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992).

Yokelson et al. fails to disclose the instantly claimed invention. Further, there is no teaching, suggestion nor motivation shown in the reference in this case to modify its teachings as suggested by the Examiner. Yokelson et al. fails to disclose or suggest the instantly claimed OH terminated homopolymer of butadiene, aliphatic or cycloaliphatic diisocyanates and symmetric diol or diamine chain extenders.

Applicants respectfully direct the Examiner's attention to U.S. Pat. No. 5,559,190 issued to Nubel et al., submitted herewith for the Examiner's convenience in an Information Disclosure Statement. According to the information printed on its face, that patent, like Yokelson et al. is a Continuation-in-Part of application Ser. No. 08/068,236, filed May 27, 1993, now U.S. Pat. No. 5,403,904, application Ser. No.08/068,240 filed May 27, 1993 U.S. Pat. No. 5,519,101 and application Ser. No. 08/167,668 filed December 15, 1993, now U.S. Pat. No. 5,512,635. It is also noted that both Messrs. Nubel and Yokelson are named as inventors on U.S. Pat. No. 5,559,190 (hereinafter "Nubel et al.") and U.S. Pat. No. 5,589,543 ("Yokelson et al.").

Applicants assert that given the above-detailed interrelationship between Yokelson et al. and Nubel et al., combined with the lack of disclosure in Yokelson et al. as to how their difunctional polybutadiene diols are made, one can reasonably conclude that the difunctional polybutadiene diols of Yokelson et al. are made according to the process described by Nubel et al.

In that process, according to Nubel et al., at col. 9, lines 26-31, their difunctional polybutadiene diols are made with a catalyst, "...composition comprising (a) a transition metal chloride, oxyhalide, oxide or ammonium salt, (b) an organic tin compound or aluminum halide reagent, and (c) an organic Lewis base..."

Further, at col. 12, lines 22-31, Nubel et al. states that,

> In the practice of this invention, the catalyst composition preferably comprises a tungsten metal chloride, a tetraalkyltin reagent and an organic Lewis base selected from the group consisting of the functional olefin reactant, an alkyl acetate, a nitrile, and an ether. Inasmuch as the tungsten catalyst in the presence of an activator such as a tetraalkyltin compound, in the absence of a Lewis base, can catalyze side reactions in a metathesis reaction of an olefin compound, a sequence of mixing the components of the catalyst system is preferred.

The presently claimed OH terminated homopolymer of butadiene is made according to instant Example 1. In this regard, the Examiner's attention is directed to page 5, line 24, of the instant specification, wherein the catalyst bis(tricyclohexylphosphine) benzylidene-ruthenium dichloride is taught for making the instantly claimed OH terminated homopolymer of butadiene. It is noted that no organic tin compound or aluminum halide reagent is included in that description nor included in the instantly claimed catalyst.

A comparison of physical properties of the difunctional polybutadiene diols of Yokelson et al. and the presently claimed OH terminated homopolymer of butadiene demonstrates that those materials are not encompassed by the disclosure of Yokelson et al. For the Examiner's convenience, the data for the difunctional polybutadiene diols of Yokelson et al. and the instantly claimed OH terminated homopolymer of butadiene is shown below in tabular format. The data for the OH terminated homopolymer of the present invention is taken from a declaration under 37 C.F.R. §1.132 submitted herewith.

Material	Eq. Wt.	M_n	Viscosity (cP)	OH # mgKOH/g
DIFOL 2000*	1170	2630	3300	48.1
DIFOL 3000*	1430	3160	6400	39.2
DIFOL 5000*	2120	4060	8800	26.5
DIFOL 6000*	2950	5530	33250	19.0
Instant Ex. 1	1300	2600	800	52.0

* Data taken from Table 2, col. 9-10 of U.S. Pat. No. 5,589,543 issued to Yokelson et al.

Applicants respectfully contend that a review of the properties of the difunctional polybutadiene diols of Yokelson et al. and the OH terminated homopolymer of butadiene of the instant Example 1 clearly shows that the instantly claimed materials are not those of Yokelson et al. Further, the disclosure of Yokelson provides no teaching, suggestion nor motivation to one of ordinary skill in the art leading him or her to produce the instantly claimed OH terminated homopolymer of butadiene with the instantly claimed catalyst.

The majority of Yokelson's disclosed diisocyanates, most notably those of their examples, are aromatic diisocyanates. Indeed, as Yokelson et al. state at col. 5, lines 3-6, their preferred diisocyanates, "...are those exhibiting several or all of the following characteristics: bulk, symmetry around the isocyanate functional groups, rigid, aromatic, crystalline and high purity." Moreover, Applicants assert that the preferred aromatic diisocyanates of Yokelson et al. are unsuitable in the present invention as demonstrated by the instant specification.

The elastomer of instant Example 6, a comparative example, is made from the instantly claimed OH terminated homopolymer of butadiene and the instantly claimed symmetric diol chain extender with one of the preferred diisocyanates of Yokelson et al., i.e., MDI. That elastomer is characterized in the instant specification at page 9, line 20 to page 10, line 2 as follows:

> After 3 hours, the plaque was too soft and cheesy to be removed from the mold. The plaque was allowed to cure in the mold at 110°C for 18 hours. The resulting plaque was opaque, cheesy, and it broke into pieces when flexed by hand.

Lastly, Yokelson et al. teachs the use of a wide variety of chain extenders, but provide no teaching, suggestion nor motivation to use only the instantly claimed symmetric diols or diamines as chain extenders.

Applicants contend that Yokelson et al. fails to disclose the instantly claimed invention. Moreover, Applicants assert that nothing in the teaching of Yokelson et al. would lead one of ordinary skill in the art to the instantly claimed invention.

Therefore, Applicants respectfully request the Examiner reconsider and reverse his rejection of Claims 1-11 under 35 U.S.C. §102(b), as being anticipated by, or in the alternative, under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 5,589,543 issued to Yokelson et al.

Rejections under 35 U.S.C. §102(e)

Claims 1-14 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Pat. No. 6,166,166 issued to Taylor et al. The Examiner, at page 5, paragraph number 9 of the instant Office Action, indicates that this rejection may be overcome by either a showing under 37 C.F.R. §1.132 or under 37 C.F.R. §1.131.

Applicants herewith submit a declaration under 37 C.F.R. §1.132 by one of the presently named inventors, Karl W. Haider, unequivocally declaring that any instantly claimed subject matter disclosed in U.S. Pat. No. 6,166,166 was invented by him along with his co-inventors. Applicants contend, therefore, the presently claimed subject matter cannot be considered to have been invented "by another" as defined in 35 U.S.C. §102(e).

Therefore, Applicants respectfully request the Examiner reconsider and reverse his rejection of Claims 1-14 under 35 U.S.C. §102(e), as being anticipated by U.S. Pat. No. 6,166,166 issued to Taylor et al.

Conclusion

Applicants have amended Claims 1, 4-6, 8, 9 and 11-14. Applicants contend that such claim amendments add no new matter and find support in the specification.

Applicants submit that the instant application is in condition for allowance. Accordingly, reconsideration and a Notice of Allowance are respectfully requested for Claims 1-14. If the Examiner is of the opinion that the instant application is in

condition for other than allowance, he is requested to contact the Applicants' Attorney at the telephone number listed below, so that additional changes to the claims may be discussed.

Respectfully submitted,

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